6

STANDING COMMITTEE ON ENERGY
(2009-2010)

FIFTEENTH LOK SABHA

MINISTRY OF NEW AND RENEWABLE ENERGY

DEMANDS FOR GRANTS (2010-2011)

SIXTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

April, 2010/Chaitra, 1932 (Saka)

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(2010-2011)

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LOK SABHA SECRETARIAT
NEW DELHI

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COMPOSITION OF THE STANDING COMMITTEE ON ENERGY
(2009-2010)

Shri Mulayam Singh Yadav—*Chairman*

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*Nominated *w.e.f.* 26th February, 2010.

INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Sixth Report on Demands for Grants of the Ministry of New and Renewable Energy for the year 2010-11.

2. The Committee took evidence of the representatives of the Ministry of New and Renewable Energy on 29th March, 2010. The Committee wish to express their thanks to the representatives of the Ministry for appearing before the Committee for evidence and furnishing the information, desired by the Committee in connection with examination of Demands for Grants (2010-11).

3. The Report was considered and adopted by the Committee at their sitting held on 12th April, 2010.

4. The Committee place on record their appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

NEW DELHI;
15 *April*, 2010
25 *Chaitra*, 1932 *(Saka)*

MULAYAM SINGH YADAV,
Chairman,
Standing Committee on Energy.

REPORT

PART I

NARRATION ANALYSIS

I. INTRODUCTORY

1.1 Energy is a basic input for almost all economic activities. One of the indicators of economic growth has all along been per capita consumption of energy. To meet the growing need, there has been tremendous dependence on fossil fuels which are limited. India is endowed with abundance of natural resources such as water, solar energy, wind, biomass etc. that can supplement the energy requirements of the country. Therefore, there is a growing need to look forward to renewable energy sources and lessen our dependence on fossil fuels.

1.2 In 1982, a separate Department of Non-Conventional Energy Sources (DNES) was created in the Ministry of Energy to look after all the aspects relating to new and renewable energy. The Department was upgraded into a separate Ministry of Non-Conventional Energy Sources (MNES) in 1992 and was re-christened as Ministry of New and Renewable Energy (MNRE), in October 2006. MNRE is the nodal Ministry of the Government of India for all matters relating to new and renewable energy. The broad aim of the Ministry is to develop and deploy new and renewable energy for supplementing the energy requirements of the country. The Ministry has been facilitating the implementation of broad-spectrum programmes covering more or less the entire range of new and renewable energy. These programems broadly seek to supplement conventional fossil-fuel-based power through harnessing wind, small hydro and bio power; reach renewable energy to remote rural areas for lighting, cooking and motive power; use renewable energy in urban, industrial and commercial applications and develop alternate fuels and applications for stationary, portable and transport uses apart from supporting research, design and development of new and renewable energy technologies, products and services.

1.3 Role of the Ministry is facilitating research, design, development, manufacture and deployment of new and renewable energy systems/devices for transportation, portable and stationary applications in rural, urban, industrial and commercial sectors through:

- Technology Mapping and Benchmarking;
- Identify Research, Design, Development, and Manufacture thrust areas and facilitate the same;
- Standards, specifications and performance parameters at par with international levels, and facilitate industry in attaining the same;
- Align costs of new and renewable products and services with international levels, and facilitate industry in attaining the same;
- Appropriate international level quality assurance accreditation, and facilitate industry in obtaining the same;
- Provide sustained feed-back to manufacturers on performance parameters of new and renewable energy products and services with the aim of effecting continuous up-gradation so as to attain international levels in the shortest possible time span;
- Facilitate industry in becoming internationally competitive and a net foreign exchange earner especially through (ii) to (vi) above and related measures;
- Resource Survey, Assessment, Mapping and Dissemination.
- Identify areas in which new and renewable energy products and services need to be deployed in keeping with the goal of national energy security and energy independence;
- Deployment strategy for various indigenously developed and manufactured new and renewable energy products and services; and

- Provision of cost-competitive new and renewable energy supply options.

1.4 Functions of the Ministry are as under:

(i) Development and Deployment (demonstration/extension) of:

- Standalone renewable energy systems/devices and services to supplement/provide energy needs of cooking, lighting & motive power in rural areas;
- Renewable energy products and services for urban, industrial and commercial applications, including energy recovery from urban and industrial wastes and effluents; and
- Grid-interactive/Off-grid renewable power systems to supplement fossil fuel based electricity generation.

(ii) Supporting related R&D activities/ projects taken up by institutions and industry.

(iii) Fostering international cooperation in new and renewable energy sector.

(iv) HRD development in new and renewable energy sector.

(v) Information, Publicity and Public Awareness creation in the sector.

1.5 Under the Allocation of Business Rules, the MNRE has been assigned the following specific items:

- Research and Development of bio-gas and programmes relating to bio-gas units.
- Solar Energy including photovoltaic devices and their development, production and applications.
- All matters relating to small/mini/micro hydel projects of and below 25 MW capacity.

- Indian Renewable Energy Development Agency.
- Research and Development of other non-conventional/renewable sources of energy and programmes relating thereto.
- Tidal Energy.
- Geothermal Energy.
- National Policy on Bio-fuels;
- research, development and demonstration on transport, stationary and others applications of bio-fuels;
- setting up of a national Bio-fuel Development Board and strengthening the existing institutional mechanism;
- Overall coordination concerning bio-fuels.

II. ELEVENTH FIVE YEAR PLAN – MID-TERM APPRAISAL

1.6 The total outlay proposed for 11th Plan was Rs.10,246 crore excluding IEBR component. The total outlay approved by Planning Commission is Rs.10,246 crore with a GBS component of Rs.4,000 crore and IEBR component of Rs.6,246 crore. The Ministry had represented to Planning Commission to enhance the GBS component, as that approved would be inadequate for achieving the 11th Plan goals/targets. It was then advised that the issue could be revisited at the time of Annual Plan discussions. Accordingly, the actual outlay (GBS) for various renewable energy programmes/activities, reduced on pro-rata basis from that proposed in the Plan Document, is as follows:

	Rs. in crore
• Grid-Interactive & Distributed Renewable Power	1,560
• Renewable Energy for Rural Applications	900
• Renewable Energy for UIC Applications	275
• Research, Design & Development	600
• Support Programmes	575
• Externally aided Programmes (EAP)	50
• Spill-Over Liabilities	40
Total	4,000

1.7 Against the total budget outlay of Rs.4,000 crore of the MNRE during 11th Plan (2007-12), the actual budgetary allocations of Rs.1868 crore during the first three years at BE level and Rs.1542.40 crore at RE level, the actual expenditure has been approx. Rs.1391.68 crore as on 28.02.2010.

1.8 The year-wise and programme-wise break-up of financial allocations and expenditure during the 11th Plan period upto

28th February, 2010 are given in *Annexure-I* and that of physical targets and achievements in *Annexure–II.*

1.9 According to the Ministry of New and Renewable Energy, significant progress w.r.t. the target set for the 11th Plan has been achieved during the first two years of the plan, and the momentum has been sustained during 2009-10. However, after stock taking midway, the progress has been noted to be slow in few sectors due to several factors, necessitating some revision of the plan targets. Mid-term Appraisal of 11th Plan programme of MNRE was held in Planning commission on 9th September, 2009. It was then, *inter-alia,* decided to retain the existing plan allocation (GBS) of Rs.4,000 crore for achievement of the revised physical targets proposed by the Ministry. Summary of revised targets along with corresponding financial requirements for the 11th Plan period *vis-à-vis* those approved initially is given at *Annexure-III.*

1.10 During the course of examination, the Committee pointed out that the Ministry has been unable to utulise the allocated funds in the first three years of the 11th Plan resulting in non-achieving the physical targets of various schemes. The Committee enquired about the reasons for not achieving the set targets and proposed action to achieve the targets in remaining two years of the Plan, the Ministry's activity-wise response is detailed in succeeding paragraphs.

Solar Photovoltaic:

1.11 There is no shortfall in meeting the physical targets during the first three years of the 11th Plan. SPV systems of aggregate capacity of 18.55 MW have been established in the country and another 9.64 MWp capacity projects have been sanctioned.

1.12 Action Plan: The Government has launched Jawaharlal Nehru National Solar Mission (JNNSM) to be implemented in three phases. Government has approved the implementation of the first phase of the JNNSM and the target to set up 1,100 MW grid connected solar plants including 100 MW of roof top and small solar plants and 200 MW capacity equivalent off-grid solar applications in the first phase of the JNNSM, till 2012-13. Estimated funds requirement is Rs. 5365 crore

towards Generation based incentive for 100 MW of roof top and small solar plants and Rs. 3415 crore towards capital/ interest subsidy for 200 MW off-grid systems. The remaining 1000 MW capacity of solar power grid-connected projects are proposed to be implemented through NTPC Vidyut Vyapar Nigam outside direct subsidy route.

RVE programme

1.13 The 11th plan target for this programme is to cover 10,000 villages/hamlets where grid connectivity will not be feasible in near future, with renewable energy based lighting/electricity. Around 4000 villages/hamlets are likely to be supported by March 2010. The achievements during 2008-09 were much lower than anticipated. An important factor has been that villagers prefer to opt for grid electrification under RGGVY and there have been delays in States identifying villages and submitting proposals. Delays have also been in their mobilizing matching share and taking necessary action for timely implementation.

1.14 Action Plan: The Ministry continues to liaise with state notified implementing agencies on a regular basis to ensure they take necessary steps at their level. After persistent follow-up, many States have now finalized the lists of villages. As per the present indications, substantial numbers of villages are being dropped from RGGVY and same are likely to be included in the list to be covered under RVE programme. It is accordingly likely that the target set for the Plan period will be achieved.

Biogas programme

1.15 On an average there has been no shortfall in utilization of financial outlays during the first three years of the 11th Plan. The expenditure in a particular year also accounts for releases made towards settlement of accounts during previous years. The physical achievements during first three years of the 11th Plan has been lower than the targets mainly on account of low level of CFA as against the actual cost of installation of family type biogas plants.

1.16 Action Plan: The CFA has now been enhanced *w.e.f.* Nov. 2009. Therefore, while the achievements will improve, it may not be possible to fully achieve the revised target. The Ministry is continuously monitoring the progress of implementation of the programme through periodic review meetings with the implementing agencies.

Biomass Power/Cogeneration

1.17 There is no shortfall in the physical target during the first three years of the 11th Plan, however, variations in financial achievement during these years have occurred as some projects becoming ineligible for subsidy as they could not pass performance evaluation. Also the bagasse cogeneration projects in private sector sugar mills have approached the Ministry mainly for fiscal incentives (but not capital subsidy) and find feed-in tariff quite attractive.

1.18 Action Plan: Continuation of existing CFA and fiscal incentives backed with preferential tariffs by State utilities; higher support for projects in cooperative sector sugar mills and for biomass power projects having fuel supply linkages. It is also proposed to support cogeneration projects in cooperative sector sugar mills taken up on BOOT basis.

Wind Power

1.19 A target for 1500 MW grid connected wind based power projects was fixed for 10th Five Year Plan Period against which a capacity of 5500 MW was installed. Therefore, an ambitious target of 10,500 MW was fixed for 11th Plan which has been reduced to 9000 MW at Mid Term Appraisal stage. During the first two years of the 11th Plan, a capacity of 3150 MW was installed. While the targets for 2007-08 was over achieved, the targets for the year 2008-09 could not be achieved due to regulatory issues in a few States, local problems in the State of Maharashtra preventing the wind power development in potential areas and non-conducive investment environment due to global economic recession. These reasons have continued for the slow progress during 2009-10 also. Following corrective measures are being taken.

- Generation based scheme has been issued recently, which will increase the investors base by attracting the IPPs and FDIs in

wind sector who were not able to avail the accelerated depreciation benefits.

- Review and simplification of procedures for allotment of land for wind power projects by concerned States, particularly the forest land. Karnataka has recently issued Renewable Energy Policy for the State, which sets a target to clear the forest land in a time bound manner. Intensive consultations are being held with States and stake holders to remove the bottlenecks in achieving the targets.

- To continue wind resource assessment in unexplored areas including North Eastern and northern areas to identify suitable sites for wind power projects.

Small Hydro Power

1.20 A target of capacity addition of 1400 MW from Small Hydro Power projects has been set for the 11th Plan period. Against a target of 750 MW in the first three years of the 11th Plan, 667.95 MW have been achieved up to 28.2.2010. There is no shortfall in the physical target during the first three years of the 11th Plan. A new scheme rationalizing the subsidy for different project categories has been announced during 2009-10. It is expected that the 11th Plan targets will be fully achieved.

Waste to Energy

1.21 Budget earmarked for Municipal Solid Waste (MSW) to Energy projects could not be utilized due to inordinate delay in development of projects proposed by Delhi Government and unsatisfactory progress at the ongoing project at Bangalore. MoUD and ULBs need to expedite implementation of MSW (Management & Handling) Rules, 2000 necessary to ensure availability of waste with adequate energy content through source segregation, in which MNRE has no involvement. The Ministry is presently focusing more on promotion of Waste-to-Energy projects in industry, with thrust on distilleries, paper and starch Industry wastes, mixed wastes and sewage gas to power.

III. ANALYSIS OF DEMANDS FOR GRANTS OF MNRE FOR 2010-11

1.22 The MNRE presented to Parliament Demand No. 67 for the financial year 2010-11 on 12th March, 2010. The Plan and Non-plan provisions made in the Revenue and the Capital Sections of the Budget are as under:

Demand No. 67

(Rs. in crore)

	Plan	Non-Plan	Total
Revenue Section	944.70	10.50	955.20
Capital	53.30	—	53.30
Grand Total (Revenue + Capital)	998.00	10.50	1008.50

1.23 A statement showing the details of the Budget Estimates for the year 2010-11 *vis-à-vis* that of Budget Estimates/Revised Estimates (BE/RE) of 2009-10 is given at *Annexure-IV*.

1.24 The total outlay of the Ministry for the financial year 2010-11 is Rs. 1950.00 crore. Out of this, the Internal and Extra Budgetary Resources (IEBR) constitutes Rs. 950.00 crore and Gross Budgetary Support (GBS) accounts for Rs. 1000 crore. The Committee have been informed that GBS to the tune of Rs. 1885 crore was proposed by the Ministry. The GBS approved by the Planning Commission and sanctioned by the Ministry of Finance is Rs. 1000 crore.

1.25 The Annual Plan outlay including Budgetary Support and Internal and Extra Budgetary Resources (IEBR), for the last three years with BE/RE and actual break-up are shown below:—

(Rs. in crore)

	2007-08			2008-09			2009-10		
	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual Upto 28.2.2010
GBS	628	483	478.72	620	499.40	441.79	620	560	472.00
NET IEBR	384.16	637.58	651.37	647.00	647.00	806.25	726.78	939.07	1114.72
Total Outlay	1012.16	1120.58	1130.09	1267.00	1146.40	1248.04	1346.78	1499.07	1586.72

1.26 The Committee desired to know the reasons of variations between BE/RE and actual expenditure. The Ministry in a written reply stated as under:—

"During 2007-08 the expenditure was up to the level of RE. There was however some set-back in the implementation of various programmes due to following factors:

(i) There were issues relating to continuation of programmes/ schemes from 10th plan to 11th plan linked with in-depth evaluation of schemes/programmes in line with MoF guidelines on the subject.

(ii) There was change in approval mechanism for Ministry's schemes/programmes to EFC mechanism from approvals given by CASE. The latter system was followed since the formation of the Ministry/Department in 1982 but was discontinued from the 11th plan as per Cabinet decision. During 2008-09 the expenditure over 88% of RE level; the shortfall was due to the declaration of General Elections, due to which implementation and expenditures were impacted.

During 2009-10, the expenditure is likely to be very close to RE level, which itself is higher than previous years."

1.27 On being enquired the reasons for reduced budgetary support at RE stage in 2009-10, the Ministry informed the Committee as under:—

"The budgetary support at RE level was reduced by the Ministry of Finance based on the Ministry's actual expenditure upto the end of 2nd quarter of Rs. 252.19 crore which had met norms of Finance Ministry for expenditure of 40% of BE level by that time. No budget provision was surrendered by the Ministry on its own."

1.28 The Committee then queried about quarter-wise expenditure made during last three years. The Ministry furnished the following information:—

(Rs. In crores)

Year	BE	RE	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
1	2	3	4	5	6	7	8
2007-08	628	483	63.45	47.90	174.24	193.13	478.72

1	2	3	4	5	6	7	8
2008-09	620	499.40	15.63	168.78	106.24	151.14	441.79
2009-10	620	560	108.60	143.58	129.45	89.55 (Jan. & Feb. 2010)	471.18 (upto Feb. 2010)

1.29 Regarding overall utilization of funds during the year 2009-10, the Ministry in a note stated:

> "The expenditure is in between 70% to 80% of RE at the end of February in all the five major heads *i.e.* Grid-Interactive and Distributed Renewable Power, Renewable Energy for Rural application, Renewable energy for Urban, Industrial and Commercial Application, Research, Design and Development in Renewable Energy and Support Programmes. While the actuals position will only be clear on 31-3-2010, it is expected that over 95% of the RE provision will get utilized."

1.30 As regards the substantial enhancement of allocation for the year 2010-11, the Ministry in a note furnished that the reasons for hike in the outlay are:

(i) Announcement of the Jawaharlal Nehru National Solar Mission to give increased thrust to Solar energy utilization, necessitating inclusion of provision for implementation of projects under the same.

(ii) Increased provision for wind power programme for implementation of new scheme on Generation Based Incentive Scheme in Dec. 2009 for wind power projects.

(iii) Increased provision for Biogas programme on account of the hike in CFA for biogas plants.

1.31 When asked about the corrective measures taken by the Ministry to proper utilization of funds earmarked for the year 2010-11,

the Ministry informed that attempt will be made to incur even more expenditure during the first two quarters than that has been incurred in the corresponding period of current year. Intensive monitoring is being done to quicken the pace of implementation of projects in States.

1.32 Detailing the trend of expenditure and implementation of the renewable programmes, the Secretary, Ministry of New and Renewable Energy deposed before the Committee during their sitting held on 29th March, 2010 as under:

> "Rs. 541 crore has been spent till 26th March, 2010. This slide includes the quarter-wise figure of the last three years. We have been trying to spend quarter-wise as per the norms of the Ministry of Finance. We are working on as per these norms. If you compare it with the last year you will notice considerable improvement. More money has been spent in the first quarter while it is less in the fourth quarter. I will explain how we are going to spend one thousand crore of rupees this year. The lay out for the year is in this way. The Government has made a new announcement regarding Solar Mission and it has increased due to this. The Solar Mission is an ambitious scheme. We have fixed ambitious target. We had started a new scheme in December for item No. 1 and generation based incentive for wind energy. The extra amount would be spent keeping in view these things. Our target is to sanction 200 MW for solar grid power and about 30 MW for off-grid applications. We would be able to implement it partially. We have never achieved the 2000 MW target till now (in wind). We hope to meet it, in addition to the previous years. 30 percent capital subsidy would be provided for the Solar Mission proposal of 30 MW in off-grid. For example, we would provide 30 percent subsidy for the use of solar panels in telecom tower replacing diesel. We are hopeful. And we have been receiving many proposals from State Governments including Uttar Pradesh and rural banks for using solar panel. We would give 30 percent subsidy for all these. We have created a momentum during the years to talk to State Government and take market approach which would increase work in solar PV. The

subsidy provided by us under this Solar Mission is proposed to be given to such people who take bank loan for lighting. We would give consumer loan at the rate of 5 percent and the Government of India would pay interest subsidy on it. We have calculated this aspect. Massive targets have been fixed and we are receiving many proposals. We therefore hope that while we make normal spending on normal programmes the extra money being provided to us would be spent for Solar Mission and Wind Power. It would increase in the end year of the plan. Hopefully the savings of Rs.1500 crore of rupees would be spent completely. We have almost spent the entire amount provided for the current year and there has been an improvement over the last years."

IV. MAJOR PROGRAMMES OF NEW AND RENEWABLE POWER

A. Grid Interactive and Distributed Renewable Power

1.33 According to the Ministry, the total approved outlay for Grid-Interactive and Off-Grid/Distributed power for 2010-11 including provision for North-Eastern Region is Rs. 545 crore. The details of the various component schemes/programmes alongwith associated physical and financial targets are as follows:

Sl. No.	Programme Component	Physical Target (MW)	BE 2010-11 (Rs. in crore)
1	2	3	4
(a)	**Grid-interactive**		
	1. Wind Power	2000	40
	2. Small Hydro Power	300	135*
	3. Biomass Power (Combustion/ Gasification) Bagasse Cogeneration	455	30
	4. Urban Waste to Energy	9	8
	Industrial Waste to Energy	8	4
	5. Solar Mission projects	200	30
	Sub-total	2972	247
(b)	**Off-Grid/DRPS**	(MWeq.)	
	1. Solar Mission systems	32	250
	2. Energy from Urban & Ind. Wastes	13	20

1	2	3	4
3.	Non Bagasse Cogeneration in Industry	75	5
4.	Biomass Gasifiers—Industrial	15	3
5.	Biomass Gasifiers—Rural	4	5
6.	Watermills with Generators	(1000 Nos.) 2.50	10
7.	Aero-generators/Hybrid Systems/Wind Pumps	0.50	5
	Sub-Total	142	298
	Grand Total	3114 MWeq.	545

*Includes provision needed for implementation of Micro/Mini hydel plants in 1058 border villages under the PM's package for Arunachal Pradesh.

1.34 The physical targets *vis-à-vis* achievement during 2007-08, 2008-09 and 2009-10 (as on 28th February, 2010) under Grid power as furnished by the Ministry are shown in *Annexure-II.*

(a) Solar Mission

1.35 Consequent to the announcement of National Action Plan on climate change in June 2008, the Government of India approved the "Jawaharlal Nehru National Solar Mission (JNNSM)" in November, 2009 with an objective to establish India as a global leader in solar energy by creating the policy conditions for its diffusion across the country as quickly as possible. The Mission aims at setting up of 20,000 MW grid solar power and 2,000 MW of off-grid solar power including 20 million solar lights by 2022. In addition, it aims at installation of 20 million square metre solar thermal collector area by 2022. For this, the mission will adopt a 3-phase approach, spanning the remaining period of the 11th Plan and first year of the 12th Plan (upto 2012-13) as Phase-I, the remaining 4 years of the 12th Plan (2013-17) as Phase-II and the 13th Plan (2017-22) as Phase-III. The target for the first phase, according

to the Ministry, is to set up 1,000 MW grid connected (33 KV and above) solar power plants; 100 MW of roof top and small solar plants connected to LT/11/KV grid and 200 MW capacity equivalent off-grid solar applications.

1.36 One of the reasons for increasing the budget allocation from Rs. 220 crore in 2009-10 to Rs. 545 crore in 2010-11 under Grid Interactive and Distributed Renewable Power, as submitted by the Ministry, is the allocations made under the head of the Jawaharlal Nehru National Solar Mission.

1.37 In their Annual Plan for 2010-11, the Ministry had proposed for an allocation of Rs. 77 crore for achieving 1100 MW of Grid-Interactive Solar Power and Rs. 1000 crore for 50 MWeq. Off-Grid/Distributed Solar Power.

1.38 On being asked as to how much amount has actually been allocated to this scheme during 2010-11, the Ministry in a written reply stated:

> "During 2010-11 an allocation of Rs. 345 crores has been proposed for SPV sector under the Mission based on the estimated requirement of funds for the various activities, including Rs. 250.0 crores for off-grid SPV Programme, Rs. 30.0 crores for grid-connected SPV Programme, and Rs. 65.0 crores for R&D in SPV."

(b) Wind Power Programme

1.39 As per the Annual Report of the Ministry for the year 2009-10, wind has been the major source during the last few years. During the 10th Plan 5427 MW was added. Therefore, the target for 11th Plan was upscaled to 10,500 MW. However the achievements upto February, 2010 is only 3855 MW. Recessionary conditions severely affected this sector. Besides, since incentives of accelerated depreciation has been the main driver, independent power producers, who could not avail of this, remained at a disadvantage. There have also been local problems is Maharashtra, reluctance of TNEB and serious problems of land/forest clearance in Karnataka. During the year, new tariff was declared in States of Rajasthan & Tamil Nadu.

1.40 In order to encourage entry of independent power producers, and to promote foreign direct investment in this sector, Ministry announced in November, 2009, a new scheme on Generation Based Incentive of Rs. 0.50 per unit of electricity fed into the grid by wind power projects to be provided over and above the tariff given by the State utilities, with an overall cap of Rs. 62 lakh per MW. The GBI would be limited to cover a maximum capacity addition of 4,000 MW during the 11th Plan only. States are being pursued to resolve local problems. Under the Mid-term Appraisal (MTA) the target for 11th Plan has been reduced to 9,000 MW. Meanwhile, several foreign companies have established manufacturing facilities in India during the year.

1.41 The Ministry had fixed a target of 2500 MW grid-interactive power capacity addition from wind power for 2009-10. However, till 28th February, 2010, were 757 MW could be achieved. When asked to elaborate the reasons for poor performance in the sector the Ministry in a written reply stated as under:

> "There is no direct relationship between the budgetary expenditure and capacity addition in wind sector as the capacity addition under this sector is taking place entirely in commercial mode with private sector investments. The capacity addition in wind sector primarily depend upon the favourable investment environment for private sector in the country as well as the positive regulatory support. The general economic slow down has also adversely affected the private sector investment. The uncertainty caused by clarity in tariff policy in some potential States such as Tamil Nadu and Gujarat for the past year has also slowed the capacity addition in wind sector. There have been some policy issues and land and forest clearance problems in Karnataka. There has been poor progress in Andhra Pradesh."

1.42 The wind power target of 10,500 MW for the 11th Plan period has been reduced to 9000 MW. Achievements upto 28th February, 2010 as reported by the Ministry has been 3906 MW. On being asked

whether the Ministry be able to achieve the rest of 5094 MW in the next two years of the plan period, the Committee have been informed as under:

> "It is seen that environment for private sector investment has started improving in the wind sector. The generation based incentive scheme will further help the investment in the sector. Announcement of higher tariff policy in Rajasthan and restoration of tariff policy in Gujarat will also help in achieving the targets. A capacity of around 1500 MW will be installed during 2009-10. Having done 3150 MW in 2007-08 & 2008-09, 1500 MW in 2009-10 and targets of 2000 MW and 2400 MW for 2010-11 and 2011-12 respectively, the overall target of 9000 MW for 11th Plan kept at MTA stage is expected to be achieved. Every possible effort will be made to ensure this."

B. RENEWABLE ENERGY FOR RURAL APPLICATIONS

1.43 The main programmes covered by the Ministry under Renewable Energy for Rural Energy for Rural Applications are as follows:

I. Programme for Remote Villages:

(i) Remote Village Electrification Programme: It aims at provision of lighting/electricity in the unelectrified remote villages/hamlets where grid connectivity is not being provided in the short-term under the Rajiv Gandhi Grameen Vidyutikaran Yojana of the Ministry of Power. Such villages/hamlets are being covered mainly with Solar PV home lighting systems.

(ii) Village Energy Security Test Projects: For meeting the energy requirements of remote villages of cooking, lighting and motive power, through locally available renewable resources, mainly biomass, with active community participation.

II. Programmes for All Villages:

(iii) Biogas Programme:

- Support for setting up of Family type biogas plants and linking sanitary toilets with biogas plants.

(iv) Solar Thermal Systems:

- Deployment of decentralized solar thermal systems/ devices, mainly solar cookers/driers for applications of cooking, drying farm produce.

1.44 According to the Ministry, a total allocation for this sector including provision for North Eastern region during 2010-11 is Rs. 170 crore. Details of the scheme-wise physical targets and financial allocations, as furnished by the Ministry, are as under:

Sl. No.	Programme Component	Physical Target	BE 2010-11 (Rs. in crore)
1.	**For remote villages/ hamlets**		
	Remote Village Electrification Programme	1500 villages/ hamlets	79
	Village Energy Security test projects	—	1
2.	**For all villages:** Family type biogas plants	0.30 million cum. (~1.5 lakh plants)	90
	Total	—	170

1.45 The Committee have been informed that the Budget Estimate (BE) during 2009-10 and 2010-11 under Remote Village Electrification Programme have been maintained at the same levels. The Ministry have further stated that during 2009-10, 754 villages/hamlets have been sanctioned upto 20th February, 2010 and 1100 Nos. of villages/hamlets are likely to be completed by March, 2010.

1.46 Regarding Biogas programme, the Committee have been informed that as against the BE of Rs. 63 crore for 2009-10, the BE for 2010-11 has been increased to Rs. 90 crore and as against the target of 1.50 lakh family type biogas plants for 2009-10, 0.69 lakh have been installed upto January, 2010. The Ministry is optimistic of reaching near the target of 1 lakh biogas plants by March, 2010.

C. RENEWABLE ENERGY IN NORTH-EASTERN REGION AND SIKKIM

1.47 The Government of India is imparting special attention to the accelerated economic development of the North-Eastern Region (NER) through a separate budget allocation under various renewable energy programmes. Accordingly, 10 per cent of the budgetary support is earmarked for NER for the deployment of biogas plants, solar thermal systems, solar photovoltaic systems, remote village electrification, small hydro projects, wind energy systems, village energy security projects and energy parks. A new project on Electrification/Illumination of all villages along the State Border & Arunachal Pradesh was initiated during the year 2008-09. A lumpsum provision for North-Eastern Region and Sikkim during 2009-10 and 2010-11 is as under:

BE 2009-10	RE 2009-10	BE 2010-11
Rs. 62 crore	Rs. 56 crore	Rs. 100 crore

1.48 As per the Annual Report of the Ministry for 2009-10, against an allocation of Rs. 56 crore as 10 per cent of the Gross Budgetary Support (GBS) at RE stage for North-Eastern Region, an amount of Rs. 36.95 crore was released during 2009-10 as on 31st December, 2009.

1.49 The Committee desired to know the details of the renewable energy programmes undertaken in the North-Eastern Region and Sikkim as well as the targets (both physical and financial) for this region under various schemes for which budgetary allocation of Rs. 100 crore has been made for the year 2010-11. The Ministry in a note submitted as under:

> "No separate targets have been assigned in advance for any region under various programmes except under the Biogas programme. In

case of other programmes, the implementing agencies are expected to prepare area/ application specific proposals for approval by the Ministry, which are considered on the basis of their relevance and availability of funds."

1.50 On being asked by the Committee, the Ministry have furnished the details of systems sanctioned to NE States during 2009-10 under different programmes as under:

Biogas Programme:

A target for installation of 11,400 biogas plants has been set for 2009-10 for the NE region and Sikkim and 3658 Nos. of plants have been installed upto Jan. 2010 and an amount of Rs. 8.60 crore released. Funds are released in accordance with the allocated physical targets.

SPV:

Sl. No.	States	Solar Lanterns (Nos.)	Home lighting systems (Nos.)	Street lights (Nos.)	Stand-alone Power Plants (kwp)
1.	Arunachal Pradesh		3079		1.0
2.	Assam		71	60	2.5
3.	Manipur		365	4398	—
4.	Sikkim	800	750	30	1.0
5.	Tripura	20,000	—	—	1.0
	Total	20,800	4,265	4,488	5.5

Remote Village Electrification (RVE):

The villages in the North-Eastern Region, including Sikkim continue to receive special attention under the Programme as they are most

suitable for electrification through stand alone renewable energy devices. A large number of villages in these States are too remote to be electrified through grid extension. A significant portion of the budget for the Programme is earmarked for these States. The status of RVE Programme in the North-Eastern States is given in the Table below:

Sl. No	State	Nos. of Remote Villages/hamlets Electrified	Projects under implementation in Villages and Hamlets
1.	Arunachal Pradesh	246	52
2.	Assam	735	1251
3.	Manipur	191	49
4.	Meghalaya	97	0
5.	Mizoram	20	0
6.	Nagaland	3	0
7.	Sikkim	13	0
8.	Tripura	401	207
	Total	1706	1559

Small Hydro Power:

North-Eastern States have fairly good potential to develop small hydro power projects. Arunachal Pradesh has the highest potential followed by Sikkim, Meghalaya and Mizoram. MNRE has been giving special emphasis for the development of small hydro projects in the NE region and higher level of financial support has been provided under SHP schemes. So far, 151 SHP projects aggregating to 255.27 MW have been set up in the NE States. The State-wise

small hydro potential, the numbers of projects set up and under implementation are as follows:—

Sl. No.	State	Potential		Projects set-up		Projects under implementation	
		Nos.	Capacity (MW)	Nos	Capacity (MW)	Nos.	Capacity (MW)
1.	Arunachal Pradesh	550	1328.68	88	67.42	36	20.70
2.	Assam	119	238.69	4	27.11	4	15.00
3.	Manipur	114	109.10	8	5.45	3	2.75
4.	Meghalaya	101	229.80	4	31.03	3	1.70
5.	Mizoram	75	166.94	18	32.47	1	8.50
6.	Nagaland	99	188.98	10	28.67	4	4.20
7.	Tripura	13	46.86	3	16.01	—	—
8.	Sikkim	91	265.54	16	47.11	2	5.20
	Total	1162	2574.59	151	255.27	53	58.05

1.51. The Committee enquired about the progress made under the programme of Border Village Electrification, Illumination of Arunachal Pradesh, the Ministry in a note replied that they are implementing a project on electrification/ illumination of 1058 border villages in Arunachal Pradesh through completion of ongoing and installation of new small hydro power projects and solar photovoltaic systems. So far 624 villages including 523 villages from solar photovoltaic home lighting systems and 101 villages from small / micro hydel projects have been illuminated/ electrified. Support has also been provided for 415 watermills in Nagaland, Manipur and Arunachal Pradesh.

V. RESEARCH, DESIGN & DEVELOPMENT IN NEW AND RENEWABLE ENERGY

1.52 Research & Development activities of the Ministry aim at resource assessment, technology development, demonstration and commercialization. The Ministry support Research, Design, Development and Demonstration (RDD&D) to develop new and renewable energy technologies, processes, materials, components, sub-systems, products & services, standards and resource assessment so as to indigenously manufacture renewable energy products and systems. A comprehensive policy on Research, Design, Development and Demonstration (RDD&D) is in place to support R&D in new and renewable energy sector, including associating and supporting RD&D earned out by industry for market development.

1.53 On being enquired by the Committee the information on the Budget outlay and actual expenditure on R&D during the last three years, the Ministry has furnished the following information:—

(Rs. in crore)

Year	Budget Outlay	Expenditure
2007-08	60	31.74
2008-09	100	27.80
2009-10	78	43.85 (upto 28.02.2010)
2010-11	150	—

1.54 The Committee have been informed that a total allocation of Rs. 150 crore has been made, including Rs. 2 crore for works outlay for Solar Energy Centre (SEC) Provided in the Demands for Ministry of Urban

Development. The details of thrust areas and corresponding sectoral allocations are as under:—

Sl. No.	Programme Component	BE 2010-11 (Rs. in crore)
1.	Bio-Energy	
	— Biofuel	9.0
	— Biogas	4.5
	— Biomass Gasification	0.5
		14.0
2.	Solar Energy—R&D Activities under Solar Mission	65.0
3.	Wind Energy	*
4.	Small Hydro Power	7.0
5.	New Technology	
	— Hydrogen Energy /Fuel Cells	20.0
	— NHEFCC	9.0
	— Tidal Energy	10.0
	— Geo Thermal	0.5
	— Battery Powered Vehicles	0.5
		40.0
6.	Solar Energy Centre (SEC)	10.0
	Provision in MoUD Budget for SEC	02.0
		12.0
7.	C-WET	8.0
8.	NIRE	4.0
	Total	150.0

*Included in C-WET Provision.

1.55 When asked about the sudden increase in BE for the year for 2010-11 upto Rs. 148 crore whereas it was Rs. 75 crore for the year 2009-10, the Ministry stated:—

"During 2009-10, 28 numbers of new projects have been recommended/ sanctioned in various R&D areas of renewable energy amounting to about Rs 100 crore. An amount of about Rs. 54 crore has been spent upto February, 2010 and the total expenditure is likely to be about Rs. 60 crore during the year. It may be seen that the sanctions for projects of about Rs. 100 crores were issued during the year which is more than the BE provision of Rs. 75 crore. However, funds are released according to progress and requirement of funds on project to project basis."

1.56 The sector specific details, as furnished by the Ministry are us under:

"**SPV:** Ministry has held consultation meetings with the research groups, industry and other experts on the identified thrust areas of research. During the year a total of 9 projects are under implementation. In addition the R&D Expert Committee has recommended other project proposal for financial support by the Ministry. These are on (i) development of polysilicon material, (ii) improvement in efficiency of solar cells, (iii) development of CIGS thin film solar cells/sub modules, (iv) development of micromorph thin film modules, (vi) development of heterojunction organic solar cells. These projects are progressing satisfactorily."

Solar Thermal: Several new R&D projects were sanctioned during 2009-10 :

A first of its kind R&D project entitled "Megawatt-scale Solar Thermal Power Testing, Simulation and Research Facility" sanctioned to IIT Bombay for joint implementation with a consortium of industries.

Project for the establishment of solar calorimeter facility for characterization of glass in windows and other fenestrations used in solar systems and green buildings sanctioned to CEPT University, Ahmedabad.

An industry driven R&D proposal sanctioned to M/s Thermax (P) Ltd, Pune, in the area of space cooling.

A project on design, development and demonstration of a solar steam generating system using two axis automatically tracked parabolic solar dish technology sanctioned to another private company on cost sharing basis.

These apart work was continued on several projects sanctioned in past, including that on Installation of ARUN 160 solar dish concentrators under which a total of 6 dishes have been supported so far in the country at various private/ govt. establishments.

Hydrogen Energy, Chemical Sources of Energy (Fuel Cells), Geothermal Energy and Tidal Energy: BE for these programmes during 2009-10 was Rs. 20.00 crore, which was reduced to Rs. 14.00 crore at RE stage. Out of this, there is a provision of Rs. 13.80 crores is for Grants-in-aid, which is likely to be fully utilized. A total of 11 new R&D projects, including four technology mission projects in the areas of Hydrogen Energy have been sanctioned so far during 2009-10. These relate to biological hydrogen production, storage of hydrogen in hydrides and carbon materials and development of internal combustion engine for hydrogen as fuel. An H-CNG Dispensing Station was set up by the IOC Ltd. at Dwarka, New Delhi with partial financial support of the Ministry in March, 2009. During 2009-10, the facility was used for dispensing H-CNG into some demonstration vehicles being operated by the IOC and blending proportion optimized based on emissions and performance data. M/o of Road Transport and Highways has notified 20% hydrogen blended with CNG as an automotive fuel."

1.57 The Committee enquired as to what are the thrust areas identified for R&D support under new and renewable energy sector for the year 2010-11. The Ministry in a note informed as under:—

"**Thrust area in Solar Energy:** targets set in the National Solar Mission for bringing down the cost. Measures being taken include– setting up of Centres for excellence in R&D on specific areas, commissioning projects to address identified technical problems, setting up/up-gradation of testing and evaluation facilities, technology evaluation projects etc.

The BE for NT programmes is Rs.40.00 crores. Apart from meeting the requirement of funds for the on-going projects, including 3.75 MW tidal power project at Durgaduani Creek in Sunderbans, West Bengal, the additional requirement of funds would be for a demonstration project proposed to be set up for solar hydrogen production in the campus of Solar Energy Centre at Gwalpahari."

1.58 Asked whether any targets were fixed for taking up RD&D in renewable energy, the Ministry in a note stated:—

"No targets are fixed for taking up RD&D in renewable energy. However, during the year 2009-10 it is envisaged to take up 20 nos. of RD&D projects. Year-wise no. of RD&D projects sanctioned during last three years along with amount earmarked and actually spent is given in hereunder:—

Sl. No.	Area of Project	2007-08		2008-09		2009-10	
		No. of Projects	Amount Sanctioned	No. of Projects	Amount Sanctioned	No. of Projects	Amount Sanctioned
1	2	3	4	5	6	7	8
1.	Solar Thermal	5	1.21	4	2.97	5	42.42

1	2	3	4	5	6	7	8
2.	SPV	6	5.11	5	2.30	3	9.60
3.	Bio-energy	1	1.00	4	10.87	1	0.37
4.	Biogas	12	3.49	1	1.08	8	4.48
5.	Bio-fuel	2	0.47			1	4.33
6.	Waste to energy	1	1.93				
7.	Hydrogen	8	4.87	4	1.62	11	40.69
8.	Fuel Cell	5	2.13				
	Total	40	20.21	18	18.84	29	101.89

1.59 The Committee pointed out that the Ministry should work out to make the RD&D programmes benefitted result oriented. The Ministry in their written reply responded as under:

"As regards benefits, it may be mentioned that R&D is a continuous process, the results of which impact the general development of the sector and are not restricted to some beneficiaries. The benefit of R&D on ongoing processes and products are absorbed by the industry to improve their products quality. The basic R&D on materials and devices takes longer lead time.

The Ministry is also supporting RD&D work on different aspects of Hydrogen energy/ Fuel Cells technologies which are basically of emerging nature that may take years to get commercialized, even in the developed countries. Areas of research work include as hydrogen production, storage, transportation, delivery, safety aspects and its utilization in transport, power generation and other applications. It is proposed to set up a National Hydrogen Energy and Fuel Cell Centre in the premises of Solar Energy Centre at Gurgaon. A detailed project report for the proposed centre has been prepared through IIT Delhi."

PART II

OBSERVATIONS/RECOMMENDATIONS OF THE COMMITTEE

The Committee note that the detailed Demands for Grants (2010-11) of the Ministry of New and Renewable Energy were laid in Lok Sabha on 12th March, 2010. The Central Plan outlay of the Ministry of New and Renewable Energy stands at Rs. 1950 crore which include an IEBR (Internal & Extra Budgetary Resources) of Rs. 950 crore and GBS (Gross Budgetary Support) of Rs. 1000 crore. The Committee have examined the Demands for Grants of the Ministry of New and Renewable Energy for the year 2010-11 in detail. The Committee endorse the Demands for Grants of the Ministry of New and Renewable Energy for the year 2010-11. Observations/ Recommendations of the Committee are detailed in succeeding paragraphs.

11TH FIVE YEAR PLAN PROGRAMMES

2.1 The Committee note that against the total outlay (GBS) of Rs.4,000 crore for 11th Five Year Plan period, the actual allocations during the first three years of the plan is Rs.1868 crore and Rs.1542.40 crore at BE and RE levels respectively and the expenditure incurred by the end of February, 2010 is Rs.1391.68 crore. The Committee also find that the Ministry had earlier represented to the Planning Commission to enhance the GBS component over and above Rs. 4,000 crore, as the amount approved would be inadequate for achieving the 11th Plan goals/targets. It was then advised by the Planning Commission that the issue could be revisited at the time of Annual Plan discussions. However, from the actual year-wise allocations and expenditure thereagainst during the last three years reflect an adverse image of the performance shown on both physical and financial fronts. The Committee's examination has revealed that against the total outlay of Rs.1868 crore for the first

three years of the 11th Plan period, an amount of only Rs. 1391.68 crore could be spent by the end of February, 2010 i.e. close to the completion of three years of the Plan which account to about one third of the GBS allocation for the 11th Plan. Taking stock of the pattern of expenditure and progress made so far under various schemes/programmes, the targets in the main schemes/programmes were scaled down during Mid-Term Appraisal though the total budgetary outlay has been kept at Rs. 4000 crore for the whole Plan. As the first three years of the plan period is over, the Ministry were expected to utilize major part of the total budget allocation of the 11th Plan. Since utilization of funds and achievements of physical targets are correlated, low utilization of budget has resulted in low achievement of physical targets. The Committee would like the Ministry to identify and focus on specific areas which have been affecting the implementation of various schemes/programmes.

(Recommendation Sl. No. 1, Para No. 2.1)

2.2 The Committee note that during the Mid-Term Appraisal of the 11th Five Year Plan, physical targets under different schemes/ programmes have been revised with the existing plan allocation (GBS) of Rs. 4000 crore. The Committee find that the physical target for Wind Power has been reduced from 10,500 MW to 9,000 MW. In Small Hydro too the target has been curtailed from 1400 MW to 1000 MW. Similarly, in Urban waste-to-energy and Industrial waste-to-energy the physical targets have been downsized resulting in overall reduction of target for grid-interactive renewable power from 14,000 MW to around 12,000 MW and that for off-grid/ distributed renewable power from 1000 MWeq. to about 500 MWeq. The Committee feel that with the overall budgetary allocation of Rs. 4000 crore, the Ministry should not find it difficult to achieve the downsized targets. At the same time, the Committee take note of the fact that out of the total amount of Rs. 4000 crore, allocation of only Rs. 1542.40 crore has been made during the first three years at RE stage and utilization of merely Rs. 1391.68 crore has been made till 28th February, 2010 leaving a balance of Rs. 2608.32 crore to be utilizied during the next two years. The Committee are

unhappy with the expenditure pattern so far wherein only around one-third of the expenditure has been made during the first three years of the Plan leaving two-third for the remaining two years. Given the allocation of Rs. 1000 crore for the year 2010-11, the Committee hope that the Ministry will be able to utilize the amount in total realization of the target during the current financial year.

The Committee are dismayed to note the achievement made so far under Grid head with regard to the target, as the target has been substantially decreased although the allocation has been increased from Rs.720 crore to Rs.1165 crore, though no reason has been given for depleted target with enhanced allocation. In this connection, the Committee appreciate that the Ministry have proposed detailed action plan to achieve both physical and financial targets during the remaining plan period including those under Solar Mission, finalization of lists of villages under Remote Village Electrification Programme, enhancing Central Financial Assistance in Biogas Programme, support for biomass and cogeneration projects in cooperative sector sugar mills and bringing out generation based incentive schemes in Wind Energy Sector. Though the past performance of the Ministry has not been encouraging, the Committee still trust that the Ministry will be able to overcome the past difficulties and perform to the best of the available resources to convert the action plan into success.

(Recommendation Sl. No. 2, Para No. 2.2)

DEMANDS FOR GRANTS OF MNRE FOR 2010-11

2.3 The Committee observe that the Budget Estimates (BE) for the year 2009-10 was Rs. 620 crore, which were subsequently reduced to Rs. 560 crore at Revised Estimates(RE) stage i.e. a net reduction of Rs. 60 crore. As against the RE of Rs. 560 crore, the actual expenditure during 2009-10 as on 28th February, 2010 was Rs. 472 crore, yet the proposed allocation of Rs. 1000 crore for the year 2010-11 does not have any correlation with the actual expenditure for the year 2009-10. While the Committee acknowledge the efforts

of the Ministry for coming close to full utilization of the given amount at RE stage during the preceding financial year, still the Committee express concern on the downward revision of BE which according to the Ministry was a general cut imposed by the Ministry of Finance. There is no justification for reduced RE more so when the Ministry meet the norm of the Ministry of Finance regarding utilization of funds during first half of the year. Keeping in view the past experience regarding reduced RE despite appropriate performance, the Committee expect the Ministry to take an impressive start with exemplary performance from the very first quarter of the year 2010-11 and closely monitor the pace of quarter-wise expenditure commensurating with the target achievement to avoid a sizeable cut in the allocations at RE stage.

(Recommendation Sl. No. 3, Para No. 2.3)

GRID-INTERACTIVE AND OFF-GRID DISTRIBUTED RENEWABLE POWER

2.4 The Committee are concerned to find that the overall achievements under Grid-Interactive and Off-grid/DRP during 2009-10 is very discouraging i.e. against the target of 3226 MW Grid power, only 1424 MW has been achieved till 28th February, 2010 which is 44 per cent of the target. The achievement in Off-Grid power is 63 MWeq. against the target of 95.80 MWeq. i.e. 65 per cent of the target. The Committee feel that the Grid and Off-Grid programmes are the most important of all renewable programmes for power generation and emphasize on the need to focus not only on the implementation of various projects/schemes under this programme but also on their proper monitoring with a view to ensure that implementation of these projects are time-bound and target oriented besides various initiatives for encouraging this form of energy.

(Recommendation Sl. No. 4, Para No. 2.4)

2.5 The Committee also note that the physical targets under Grid-Interactive power programme have been reduced to 2972 MW

for the year 2010-11 as compared to that of 3226 MW for 2009-10 though the financial allocation has been increased from Rs. 160 crore in 2009-10 to Rs. 247 crore in 2010-11 which include the ambitious target of 200 MW with an allocation of Rs. 30 crore under Solar Mission Projects. The programme which has suffered from substantial cut in physical target is Wind Energy where the target has been reduced from 2500 MW in 2009-10 to 2000 MW in 2010-11 while the BE has been increased to Rs. 40 crore in 2010-11. Notwithstanding the increased allocation for the current financial year, the Committee are not satisfied with the achievement of merely 757 MW of wind energy by the end of February, 2010 during 2009-10 against the target of 2500 MW and are unable to understand the rationale behind increased allocation of Rs. 40 crore for a reduced target of 2000 MW for the year 2010-11. The low achievement has been attributed to regulatory issues in a few States, local problems in the State of Maharashtra and non-conducive investment environment due to global economic recession. The Committee feel that the reasons advanced by the Ministry are not convincing enough and hope that the Ministry will take advantage of their generation based scheme and the recently issued Renewable Energy Policy of Karnataka, which is the highest potential State, and will be able to utilize full allocation this time with correspondingly encouraging results. The Committee observe that there is huge untapped potential in Wind Energy Sector as only about 11000 MW capacity is achieved as against the identified potential of more than 48500 MW in different States of the country. The Committee, therefore, strongly recommend that to achieve the target, the Ministry should identify the States/areas with huge potential underexploited or unexploited and accelerate resource assessment for tapping the wind energy capacity at optimum level by establishing suitable wind power projects.

(Recommendation Sl. No. 5, Para No. 2.5)

SOLAR MISSION

2.6 The Committee note that the aims of the Mission is to set up 20,000 MW grid solar power, 2,000 MW off-grid solar power

including 20 million solar lights and 20 million square metre solar thermal collector area by 2022. The target for the first phase (upto March, 2013), according to the Ministry, is to set up 1000 MW grid connected (33KV and above) solar power plants, 100 MW of roof top and small solar plants connected to LT/11/KV grid and 200 MW capacity equivalent off-grid solar applications. The Committee also take note of the fact that the proposed target of 1100 MW grid solar power generation with an estimated expenditure of Rs.77 crore for the year 2010-11 has been reduced to the target of 200 MW with an allocation of Rs.30 crore. Similarly, under off-grid/Distributed Solar Power Programme, the proposed target to achieve 50 MWeq. at an estimated investment of Rs.1000 crore has been scaled down to 32 MWeq with Rs.250 crore. The Committee do not find any proportional co-relation between targets and allocation at proposal and actual stage under grid and off-grid category. The Committee also express their concern about the achievement of set target by 2013 in the light of the reduced target for the year 2010-11. The Committee feel that the reduction in both the targets and allocations in the initial stage of the Mission has raised serious doubts about the sincerity of the Government to achieve the financial and physical targets during the current year also. In view of the importance given to the Solar Mission, which is one of the most ambitious programmes of the Renewable Energy Sector and also in view of the past performance of the Government in solar grid sector where a meagre 8.21 MW of grid power generation capacity could be achieved during the 11th Plan so far, the Committee recommend that the Government should come out with a vision document with meticulous planning, implementation and monitoring of the programme, phase-wise.

(Recommendation Sl. No. 6, Para No. 2.6)

RENEWABLE ENERGY FOR RURAL APPLICATIONS

2.7 The Remote Village Electrification Programme aims at providing basic lighting/electricity facilities through renewable energy systems like small hydro plants, biomass gasification systems, biogas

engines, solar photovoltaic (SPV) power plants and SPV homelighting systems in those unelectrified remote census villages and hamlets where grid connectivity are not being provided under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). The Committee note that this programme was loaded with a physical target to cover 9,000 villages in 11th Plan period. Though the programme could not show the desired result during Mid-Term Appraisal and only 2,628 villages (1,605 completed) could be covered at an expenditure of Rs.235.60 crore as on 31st July, 2009. During the Mid-Term Appraisal, the Planning Commission has fixed the target for 11th Plan to cover 10,000 villages at a budgetary outlay of Rs.600 crore. The Committee feel that the expectations from the Ministry towards illumination of the villages in far-flung and inaccessible areas are much higher but the performance in this area has been far from satisfactory. The scrutiny of the data reveals that during 2009-10, against the target of 1500 villages and hamlets, 754 were sanctioned and 773 villages/ hamlets could be electrified as on 28th February, 2010. The Committee appreciate the optimism shown by the Ministry to complete 1100 nos. of villages/hamlets by March, 2010. However, according to the Ministry, one of the factors for low achievement and slow progress of the projects has been the preference of villages for grid electrification under RGGVY and the delays in States' identifying villages and submitting progress. The Committee have been given to understand that many States have now finalized the list of villages and that substantial numbers of villages are being dropped from RGGVY which will be included in the list of villages to be covered under RVE Programme. With the completion of the process of identification of villages in many States, the Committee expect the Ministry to speed up their action plan to achieve 10,000 villages and hamlets targeted for 11th Plan. The Committee, therefore, strongly recommend that owing to importance of the scheme and the benefit accruing to end-user, it will be extremely encouraging if all the stages involved in the process of RVE are completed in a time-bound and co-ordinated manner with all the

agencies involved so as to not only provide electricity to the natives of remote villages but also to improve their living conditions as a result thereof.

(Recommendation Sl. No. 7, Para No. 2.7)

RENEWABLE ENERGY IN NORTH EASTERN REGION & SIKKIM

2.8 The Committee note that 10 per cent of the budgetary support of the Ministry is earmarked for North Eastern Region (NER) for implementing various renewable energy programmes to accelerate the economic development of the region. Accordingly, a lump-sum provision of Rs.100 crore has been made for NER for 2010-11 under various renewable energy programmes. The Committee find that some of the most suitable and viable programmes/systems for the region are Biogas Programme, Small Hydro Power, and Remote Village Electrification. The Committee observe that the biogas plants installed during 2009-10 are very less i.e. only 3,658 plants till January, 2010 against the target of 11,400 plants in North Eastern Region including Sikkim. Again, the number of villages and hamlets electrified through Remote Village Electrification Programme is found to be very low, especially in the States of Nagaland and Sikkim where only 3 and 13 villages/hamlets respectively have been covered. The Committee further observe that in spite of the region having vast potential to develop small hydro power projects, the number of projects so far set up is very discouraging. Further disquieting for the Committee is the fact that no separate targets are assigned in advance for the region under various programmes except under biogas programme. The Committee are of the opinion that in the absence of targets it would be difficult to set the parameter of achievements. Against this backdrop, the Committee recommend the Ministry to identify the potential availability of the various renewable energy systems of the region and set targets accordingly. The Committee further recommend that since the potentiality in the field

of biogas and small hydro power has been identified, necessary steps should be taken to exploit the potential by effectively implementing the action plan for optimum utilization of capacities in bio-gas and small hydro areas and also the action under RVE be expedited to cover the remaining remote villages of the region.

(Recommendation Sl. No. 8, Para No. 2.8)

RESEARCH, DESIGN AND DEVELOPMENT IN NEW AND RENEWABLE ENERGY

2.9 The Research and Development is the most crucial and prime factor for development and progress for all the renewable energy sources, more so as the country is shifting its focus from fossil fuels (coal/gas/oil) to the natural sources of energy like wind, solar, hydro, bio-gas, etc. However, the Committee have been consistently expressing their concern in the Reports on Demands for Grants of the Ministry presented in previous years over moderate allocation of funds and poor utilization thereof towards Research and Development in Renewable Energy Sector. The apprehension of the Committee are supported by the fact that at the beginning of 11th Plan, the budgetary outlay of Rs.1,462 crore was projected to support RD&D on different aspects of new and renewable energy technologies; support of MNRE Centres/Institutions like Solar Energy Center (SEC), Center for Wind Energy Technology (C-WET) and National Institute of Renewable Energy (NIRE); Standard and Testing; Renewable Energy Resource Assessment and other programmes. However, only Rs.600 crore was approved under this head, out of which only around Rs.65 crore could be spent till 31st July, 2009. Subsequently at the time of Mid-Term Appraisal, the budgetary outlay was downsized to Rs.500 crore for 11th Plan which included about Rs.140 crore for setting up of the National Hydrogen Energy and Fuel Cell Center and implementation of the Durgaduani tidal power project. The Committee observe that RD&D in New and Renewable Energy has not drawn attention of the Government

it deserves. Research and Development is the hallmark of any scheme for its success as continues research exercises not only updates the technologies, but make them more economic and people friendly. Hence, due priority to RD&D is need of the hour.

Even in 2009-10, though the Ministry have stated that 28 new projects have bene sanctioned in various R&D areas amounting to about Rs.100 crore, the Committee find that only Rs. 43.85 crore could be actually utilized upto 28th Febraury, 2010 against the outlay of Rs. 78 crore. For low expenditure the Ministry have taken pleas that funds are released according to progress and requirement of funds on project to project basis. The Committee feel that the justification, though prudently put forward, does not stand the test of scrutiny as the utilization of funds have been continuously poor over the years leading to no new researches and less utilization of available capacities. However, the Committee uphold the Ministry's aspirations of fruitful results in future by virtue of the sanction to the tune of Rs. 100 crore accorded to 28 new projects during 2009-10. t the same time, the Committee hope that the increased allocation for 2010-11 of Rs. 150 crore will be fully utilized by accelerating the result oriented expenditures in key areas. The Ministry should also come out with a vision plan in this regard.

(Recommendation Sl. No. 9, Para No. 2.9)

2.10 The Committee find from the n nual Report of the Ministry of New and Renewable Energy for the year 2009-10 that as pointed out in C& G's Report, the Solar Energy Centre (SEC) surrendered 44 to 76 per cent of the funds allocated during 2002-2007, indicating poor financial management as it had very little works of project implementation. Testing facilities established at SEC were underutilized. SEC did not take up any in-house, joint collaborative research, consultancy, bilateral and multilateral projects with other research institutions/industry. Moreover, it did not develop any technology or have any research papers published in reputed Indian

and foreign journals. lso three grants-in-aid projects were not completed successfully, resulting in unfruitful expenditure. Besides, the scientific manpower responsible for implementation of various projects was frequently transferred from SEC to Ministry which seriously jeopardised the activities of SEC. The Committee are also aware of the fact that the Solar Energy Centre is the technical focal point of the Ministry for development of solar energy technologies and related matters. The Committee feel that SEC has a vital role to play in the accomplishment of the targets under Solar Mission and take a serious view of the issues raised in the u dit Report. The Committee, therefore, recommend that the issues raised in the u dit Report merit serious attention of the Government with a view to take urgent remedial measures so that not only the unfruitful expenditure and surrender of funds are avoided but also research oriented initiatives are taken in a time bound manner to give a new thrust to the new and renewable energy to meet the growing needs of energy in the country. The Committee would like to be informed of the conclusive/ specific action taken by the Ministry in this regard.

(Recommendation Sl. No. 10, Para No. 2.10)

NEW DELHI;
15 *April*, 2010
25 *Chaitra*, 1932 *(Saka)*

MULAYAM SINGH YADAV,
Chairman,
Standing Committee on Energy.

ANNEXURE I

(*Vide* Para No. 1.8 of the Report)

11th PLAN — PROGRAMME-WISE BREAK-UP OF APPROVED OUTLAY (GBS) AND EXPENDITURE DURING FIRST 3 YEARS *viz.* 2007-08, 2008-09 AND 2009-10 (UPTO 28.02.2010)

(Rs. in crore)

Sl. No.	Programme Component	2007-08		2008-09		2009-10		Total	
		Outlay	Exp.	Outlay	Exp.	Outlay	Exp. (upto 28.2.2010)	Outlay	Exp.
1	2	3	4	5	6	7	8	9	10
1.	Grid-Interactive & Distributed Renewable Power	110	87.92	150	116.20	220	183.29	480	387.41
2.	Renewable Energy for Rural Applications	200	190.29	160	151.19	155	116.08	515	457.56
3.	Renewable Energy for UIC Applications	80	22.22	26	16.55	75	58.20	181	96.97

1	2	3	4	5	6	7	8	9	10
4.	Research, Design & Development in RE	60	31.74	100	27.80	78	43.85	238	103.39
5.	Supporting programmes	130	131.85	170	126.92	82	66.19	382	324.96
6.	Spillover liabilities of 10th Plan programmes	25	4.96	5	2.12	2	1.75	32	8.83
	DOMESTIC BUDGETARY SUPPORT (DBS)	605	468.98	611	440.78	612	469.36	1828	1379.12
7.	Externally Aided Projects (EAP)	23	9.74	9	1.00	8	1.82	40	12.56
	Total Gross Budgetary Support (GBS)	628	478.72	620	441.78	620	471.18	1868	1391.68

ANNEXURE II

(*Vide* Para Nos. 1.8 and 1.34 of the Report)

11th PLAN — TARGETS AND ACHIEVEMENT DURING 2007-08, 2008-09 AND 2009-10 AND TOTAL 11th PLAN (AS ON 28.2.2010)

S.No.	Programme/system		2007-08		2008-09		2009-10		Total 11th Plan	
			Target	Ach.	Target	Ach.	Target.	Ach. (28.02.2010)	Target	Achs. (28.02.2010)
1	2		3	4	5	6	7	8	9	10
	GRID POWER (Capacities in MW)									
1.	Wind Power		1500.00	1663.50	2000.00	1485.50	2500.00	757.00	6000.00	3906.00
2.	Small Hydro		200.00	204.75	250.00	248.93	300.00	214.65	750.00	668.33
3.	Bio Power		275.00	81.00	300.00	97.50	400.00	158.00	980.00	336.50
4.	Bagasse Cogeneration			185.00		247.90		281.30		714.20
5.	Waste to Power	Urban	2.00	-	5.00		14.00	-	22.00	
		Indstl.	10.00	11.72	8.00	3.66	10.00	4.72	18.00	20.10
6.	Solar Power				14.00		2.00	8.21	18.00	8.21
	Total		1987.00	2145.97	2577.00	2083.49	3226.00	1423.88	7788.00	5653.34

1	2		3	4	5	6	7	8	9	10
	OFF–GRID (Capacities in MWeq)									
7.	Waste to Power	Urban	3.00	3.00	5.00		10.00	-	18.00	3.00
		Indstl.	5.00	4.00	7.00	7.36		15.88	12.00	27.24
8.	Non-bag Cogen.		20.00	49.20	30.00	75.77	50.00	40.00	100.00	164.97
9.	Gasifiers	Rural	1.00	1.02	1.00	1.03	3.00	1.20	5.00	3.25
		Indstl.	10.00	11.62	10.00	13.20	10.00	4.00	30	28.82
10.	Aero-Gens/ Hybrid systems		0.15	0.11	0.30	0.11	0.30	0.10	0.75	0.32
11.	SPV Plants + Street Lights		-	0.33	-	1.00	5.00	0.086	5.00	1.416
12.	Water Mills (WMs)/ Micro/mini-hydel plants		-	0.37 (144 nos. WMs)	-	0.70 (339 nos. WMs)	17.50	1.75 (19 nos. WMs)	17.50	2.82
	Total		39.15	69.65	53.30	99.17	95.80	63.016	188.25	231.836

MW = Megawatt; MWeq = Megawatt equivalent

1	2	3	4	5	6	7	8	9	10
	DECENTRALISED RENEWABLE ENERGY SYSTEMS AND OTHER PROGRAMMES								
13.	Remote Village Electrification (Nos. of Villages+ Hamlets)	2000	1992 Sanctioned/ 1280 completed	1500	636 Sanctioned/ 325 completed	1500	754 sanctioned/ 773 completed	5000	3382 sanctioned/ 2378 completed
14.	Family type Biogas Plants (No. in Lakh)	1.00	0.89	1.24	1.08	1.50	0.69	3.74	2.66
15.	SPV Home Light Systems (Nos.)		57,382		65,904		71632		194918
16.	SPV Lanterns (Nos.)		46958		56,397		82999		186354
17.	Street Lights (Nos.)		8462		7391		8680		24533
18.	SPV Pumps (Nos.)	100	42		56		106		204
19.	Solar Water Heating – collector area (Million sq. meter)	0.60	0.45	0.60	0.56	0.60	0.45	1.80	1.46
20.	Solar Cookers (Nos.)	20,000	20,165	20,000	20,590	20,000	5,000	60,000	45,755

MW = Megawatt; kW = kilowatt; kWp = kilowatt peak; sq.m. = square meter

ANNEXURE III

(*Vide* Para No. 1.9 of the Report)

11th PLAN – SUMMARY OF REVISED TARGETS AND FINANCIAL REQUIREMENTS

Programme	11th Plan Proposed Targets/Outlay		Approved outlay (Rs. in crore)	Revised Projections for 11th Plan	
	Physical targets	Proposed outlay (Rs. in crore)		Physical	Financial (Rs. in Crore)
1	2	3	4	5	6
Grid Interactive Renewable Power (in MW)					
Wind Power	10,500	75		9,000	200
Small Hydro Power	1,400	700		1,000	700
Biomass Power*	500	600		500	120
Bagasse Co-generation	1,000			1,200	
Non-bagasse Cogeneration	200	200		0	0
Solar Power	*	*		50	50
Urban waste-to-energy	200	150		33	55
Industrial waste-to-energy	200	75		46	40
Sub-total	14,000	1,800	720	11,829	1,165

*Non fuel-wood.

1	2	3	4	5	6
Wind Power/Hybrid Power	950	1900		2	26
Small Hydro Power				12	26
- Water Mills					
- Micro/Mini-hydel					
Arunachal Package project				1058 villages	(100)
Bio Power					
- Urban Waste				5	10
- Ind. Waste				45	22
- Non-Bagasse Cogen (captive use)				335	37
- Biomass Gasifier—Rural				14	16
- Biomass Gasifier—Industrial				65	13
Solar Power (grid/off-grid)	50	200		5	50
Sub-total	1000	2,100	840	483	200
Grid+Off-grid/DRPS)	15,000	3,900	1,560	12,312	1,365

1	2	3	4	5	6
Rural Energy System/Programme					
FT Biogas Plants for cooking applications	2 mln. cum.	250		1.4 mln.	450
Remote Village Electrification (RVE)	9,000 villages	650		10,000 villages	600
VES Projects	1,000 villages	225			
Common component for cooking/motive power (Non-electrical RE systems)	All 10,000 villages under RVE and VESP	900		0	0
Flat plate collectors for hot water	1.0 mln.m^2 collector area	150		0	0
Solar Cookers/Driers	0.5 mln. m^2 collector area	50		0	0
Concentrating Solar Cookers	0.1 mln. m^2 collector area	25		0	0
Decentralized SPV systems/devices	–	250*		20 MW	400
Total		2,500	1,000		1,450

1	2	3	4	5	6
Urban Energy System/Programme					
Solar Water Heating Systems	9.5 mln. m^2 collector area	375		5 mln. m^2 collector area	75
Solar Cookers/Driers	0.25 mln. m^2	32		12,000 m^2	4
Conc. Type solar cookers	0.25 mln. m^2	63		20,000 m^2 collector area	8
Instnl./prog. support (to motivators & banks)	-	50		Included under S.No.1 above	
Incent. To municipal corpns.	100 Nos.	10		-do-	
Energy Efficient Buildings	0.5 mln. m^2 floor area	50		4 mln. m^2 floor area	30
Cities with RPOs	100 Nos.	50		60 Nos.	40
Akshayay Urja Shops	2000 Nos.	55		137	3
SPV Systems	Market Mode; no subsidy			Included in SPV deployment in rural areas	
Grid/Off-grid power projects based on Bio/U&I Wastes	Included under renewable power				
Total (3)		685	275		160

1	2	3	4	5	6
RD&D					
Bio Energy (Biogas, Biomass, Bio-fuel)	Unspecified	150	70	Unspecified	30 Biogas : 18 Biofuels : 10 Biomass : 2
Solar energy		400	200		200 SEC – 50 ST – 75 SPV – 75
Wind Energy		200	80		11
Small Hydro Power		50	20		25
New Technology		505	202		170
Institutions– CWET, NIRE		80	32		40 23
Resource Assessment		25	10		*
Standards and Testing etc.		35	14		**
Others – TIFAD etc.		17	7		1
Total		1,462	600		500

*Included in Institutions including SEC.
**Included in respective RE sectors.

ANNEXURE IV

(*Vide* Para No. 1.23 of the Report)

DEMANDS FOR GRANTS OF THE MINISTRY OF NEW AND RENEWABLE ENERGY

DEMAND NO. 67

A. The Budget allocations, net of recoveries, are given below:

(In crores of Rupees)

		Budget 2009-10			Revised 2009-2010			Budget 2010—2011		
	Major Head	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
	Revenue	597.20	11.00	608.20	539.65	13.32	552.97	944.70	10.50	955.20
	Capital	19.80	....	19.80	19.80	....	19.80	53.30	....	53.30
	Total	617.00	11.00	628.00	559.45	13.32	572.77	998.00	10.50	1008.50
1	2	3	4	5	6	7	8	9	10	11
1. Secretariat—Economic Services New and Renewable Energy	3451	13.50	11.00	24.50	13.50	12.35	25.85	13.40	9.50	22.90
New and Renewable Energy										
2. Grid Interactive and Distributed Renewable Power	2810	185.00		185.00	170.69	...	170.69	452.00		452.00

1	2	3	4	5	6	7	8	9	10	11
3. Renewable Energy for Rural Applications	2810	118.00		118.00	116.27	...	116.27	143.00		143.00
	3610	10.00	...	10.00	10.00	...	10.00	20.00		20.00
	Total	128.00		128.00	126.27	...	126.27	163.00	...	163.00
4. Renewable Energy for Urban, Industrial and Commercial Applications	2810	74.80	...	74.80	65.10	...	65.10	25.00	...	25.00
	3602	0.20	...	0.20	0.20	...	0.20	...	...	...
	Total	75.00	...	75.00	65.30	...	65.30	25.00	...	25.00
5. Research, Design and Development in Renewable Energy	2810	74.80	...	74.80	62.61	...	62.61	144.70	...	144.70
	4810	0.20	...	0.20	0.20	...	0.20	3.30	...	3.30
	Total	75.00	...	75.00	62.81	...	62.81	148.00		148.00
6. Supporting Programmes										
6.01 External Support (EAP)	2810	8.00	...	8.00	2.00	...	2.00	3.00	...	3.00
6.02 Domestic Support	2810	48.90		48.90	39.03	...	39.03	42.60	1.00	42.60
	Total	56.90	...	56.90	41.03	...	41.03	45.60	1.00	45.60

1	2	3	4	5	6	7	8	9	10	11
7. Other Expenditure	2810	0.25	...	0.25	0.25	...	0.25	0.10	...	0.10
	3601	1.75	...	1.75	4.00	...	4.00	0.90	...	0.90
	Total	2.00	...	2.00	4.20		4.20	1.00		1.00
8. Investment in Public Enterprises	4810	19.60	...	19.60	19.60		19.60	50.00	...	50.00
9. Lump sum Provision for N.E. Regions & Sikkim	2552	62.00	...	62.00	56.00	...	56.00	100.00	...	100.00
Grand Total		617.00	11.00	628.00	559.45	13.32	572.77	998.00	10.50	1008.50
B. Investment in Public Enterprises	Head of Div.	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
8.01 Indian Renewable Energy Development Agency	12810	19.60	726.78	746.38	19.60	939.07	958.67	50.00	950.00	1000.00
	Total	19.60	726.78	746.38	19.60	939.07	958.67	50.00	950.00	1000.00
C. Plan Outlay*										
1. New and Renewable Energy	12810	558.00	726.78	1284.78	504.00	939.07	14443.07	900.00	950.00	1850.00
2. North Eastern Areas	22552	62.00	...	62.00	56.00	...	56.00	100.00	950.00	100.00
Total		620.00	726.78	1346.78	560.00	939.07	1499.07	1000.00	950.00	1950.00

*Inclusive of works outlay provided in the Demands of Ministry of Urban Development.

MINUTES OF THE THIRTEENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2009-10)

The Committee sat on Monday, the 29th March, 2010 from 1100 hrs. to 1245 hrs. in Committee Room '62', Parliament House, New Delhi.

PRESENT

Shri Mulayam Singh Yadav—*Chairman*

MEMBERS

Lok Sabha

2. Shri P.C. Chacko
3. Shri Ram Sundar Das
4. Shri Paban Singh Ghatowar
5. Shri Arjun Munda
6. Shri Sanjay Nirupam
7. Shri Jagdambika Pal
8. Shri Ravindra Kumar Pandey
9. Shri Nityananda Pradhan
10. Shri M.B. Rajesh
11. Shri Ganesh Singh
12. Shri Radha Mohan Singh
13. Shri Vijay Inder Singla
14. Shri Subhash Bapurao Wankhade

Rajya Sabha

15. Shri Motilal Vora
16. Shri Santosh Bagrodia
17. Shri Rama Chandra Khuntia
18. Shri Bhagat Singh Koshyari

19. Shri Shyamal Chakraborty
20. Shri Veer Pal Singh Yadav
21. Shri Govindrao Wamanrao Adik
22. Shri Mohammad Shafi
23. Prof. Anil Kumar Sahani

SECRETARIAT

1. Shri Brahm Dutt	—	*Joint Secretary*
2. Shri N.K. Pandey	—	*Additional Director*
2. Shri Rajesh Ranjan Kumar	—	*Deputy Secretary*

REPRESENT TIVES OF THE MINISTRY OF NEW ND RENEW BL E ENERGY

1. Shri Deepak Gupta	Secretary
2. Shri R. Bhattacharya	Additional Secretary & FA
3. Ms. Gauri Singh	Joint Secretary
4. Shri Hari Kumar	Joint Secretary
5. Shri D. Majumdar	CMD, IREDA
6. Dr. B. Bandopadhyay	Scientist 'G'
7. Dr. N.P. Singh	Scientist 'G'
8. Shri Sudhir Mohan	Scientist 'G'
9. Dr. B.M.S. Bist	Scientist 'G'
10. Dr. A.R. Shukla	Scientist 'G'
11. Dr. Gomathi Nayagam	Executive Director, C-WET

2. At the outset, the Chairman welcomed the members of the Committee and the representatives of the Ministry of New and Renewable Energy to the sitting of the Committee and emphasized the growing importance of New and Renewable Energy Sector.

3. Thereafter, the representatives of the Ministry made a power-point presentation on the Demands for Grants (2010-11) focusing on their targets and achievements under various programmes.

4. The Committee *inter-alia* discussed with the representatives of the Ministry of New and Renewable Energy the following important points:—

(i) Low utilization of funds/low achievement of targets by the Ministry, particularly w.r.t. first three years of 11th Five Year Plan.

(ii) Outlay and actual expenditure of the Ministry for the year 2009-10.

(iii) Quarter-wise expenditure trend of the Ministry.

(iv) Grid-Interactive and off-grid Renewable Power Programme including National Solar Mission, Wind Energy, Small Hydro Projects, Biomass, Biogas besides Remote Village Electrification Programme and Renewable Energy Programmes in North-East Region,etc.

(v) Need to popularize the importance of Renewable Energy at the grassroot level.

(vi) Need for greater emphasis on Research and Development activities in Renewables.

The Members sought clarifications on various issues relating to the subject which were responded to by the representatives of the Ministry. The Committee directed the representatives of the Ministry to furnish written replies to the queries which could not be replied during the sitting.

5. A verbatim record of the proceedings of the sitting of the Committee has been kept.

The Committee then adjourned.

MINUTES OF THE FOURTEENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2009-10)

The Committee sat on Monday, the 12th April, 2010 from 1015 hrs. to 1100 hrs. in Committee Room '53', Parliament House, New Delhi.

PRESENT

Shri Mulayam Singh Yadav—*Chairman*

MEMBERS

Lok Sabha

2. Shri Ram Sundar Das
3. Shri Arjun Munda
4. Shri Shripad Yesso Naik
5. Shri Ravindra Kumar Pandey
6. Shri Nityananda Pradhan
7. Shri M.B. Rajesh
8. Shri Ganesh Singh
9. Shri Vijay Inder Singla

Rajya Sabha

10. Shri Motilal Vora
11. Shri Santosh Bagrodia
12. Shri Rama Chandra Khuntia
13. Shri Bhagat Singh Koshyari
14. Shri Shyamal Chakraborty
15. Prof. Anil Kumar Sahani
16. Shri Govindrao Wamanrao Adik
17. Shri Mohammad Shafi

SECRETARIAT

1. Shri Brahm Dutt — *Joint Secretary*
2. Shri N.K. Pandey — *Additional Director*
3. Shri Rajesh Ranjan Kumar — *Deputy Secretary*

2. At the outset the Chairman welcomed the Members to the sitting of the Committee.

3. The Committee then took up for consideration the following draft Reports:

(i) Draft Report on the Demands for Grants (2010-11) of the Ministry of Power.

(ii) Draft Report on the Demands for Grants (2010-11) of the Ministry of New and Renewable Energy.

The Committee adopted the draft Reports with slight modifications.

4. The Committee also authorized the Chairman to finalize the above-mentioned Reports taking into consideration the modifications suggested by the Members and consequential changes arising out of factual verification, if any, by the concerned Ministries and also to present the same to both the Houses of Parliament.

The Committee then adjourned.

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